Study on Health Extension Workers: Access to Information, Continuing Education and Reference Materials

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Abstract

Background: Access to information through continuing education (CE), reference and other resource materials is a prerequisite to the achievement of MDGs. Access of health workers to information in Ethiopia has been poor and will be further challenged by the deployment of 30,000 Health Extension Workers (HEW). Therefore, a study was undertaken to make a clear needs assessment, define priorities and identify resources to plan appropriate CE programs and prepare reference materials.

Method: The study was conducted in 27 woredas, 50 health posts (HP) and on 60 HEW in all regions where HEW have been already deployed.

Results: Almost all HEW have participated, on average for three and half days, in CE since their deployment. Woreda Health Offices (WHOs) were the main organizers. The HEW training modules are the only reference materials available at the HP level. Training in curative care and delivery related subjects stand out in future CE expectations of the HEW.

Discussion and conclusions: The attention given to CE is encouraging but requires better planning and coordination. There is need to provide more reference and other resource materials. Increased use of modern technology for providing information should be explored. [*Ethiop.J.Health Dev.* 2007;21(3):240-245]

Introduction

Continuing education (CE) has been a component of health workers, physicians in particular, professional activity for centuries (1) even though universally considered inadequate (2). Pre-service education cannot cover all that will be required for a life of health practice. Changes occur continuously and health workers have to keep abreast of these developments. CE could play an important role in improving quality of services and motivating health workers (3). Ethiopian health system has recognized the importance of CE/in-service training from early on (4). The Health Policy (5) and Strategy (6) give it a pride of place. Consequently a large number of CE has been conducted during HSDP I and II. However, these have been noted for their uncoordinated and often ill-targeted nature (7, 8). Most are not based on performance need analysis showing gaps in knowledge and skills but mostly on dictates of presumed requirements of vertical or quasi-vertical programs. They are often conducted without adequate planning, organization and resources, human resources expertise in particular (9). In some countries, these "hotel workshops" have been blamed of taking personnel from their job and reducing the already scant supply of full-time equivalent workers (10). Although universal access to information for health professionals is a prerequisite for meeting the Millennium Development Goals and achieving Health For All (11), the majority of health workers in Ethiopia lack access to reliable, relevant and usable information.

The accelerated training and deployment of HEW could only aggravate the situation unless systematic and adequate measures are taken to meet the challenges of some 30,000 HEW in some of the most remote areas of the country. Because of great distances and poor transport and communication facilities the sense of isolation of these cadres is bound to be great (12). For the same reasons, contact with and support from professionals with better training and skill is bound to be rare (13). The first intake of HEW did not have any reference material during their training and were deployed without any (14). The general tendency with CE is to delay and handle it in an ad hoc manner. The need for a well planned and timely CE is patent and the assessment of the training of the first intake of HEW identified CE as a critical area that needs to be addressed (14). Moreover, knowledge and experiences on access of HEW to information are very limited and there are virtually no previous studies on the subject.

The objective of this study was to make a clear needs-assessment; assess access to CE, clearly map out and articulate priorities in and identify resources to undertake CE. Understanding the need, priority areas and potential resources with regard to CE will contribute to mitigate deficiencies in the pre-service training and to plan appropriate CE programs and in the preparation of reference materials.

Method

All regions that have already deployed HEW were included in the study. Districts with functional health posts within each region were listed and a sample of districts was selected. Then health posts were randomly selected from each district. HEW from the selected health posts, focal persons from each WHO and RHB were recruited. Thus the sample was comprised of HEW, nurses, health officers who have been working in the area since the HEP was initiated.

The study was exploratory and essentially qualitative to pave the way for future more systematic (representative

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sample based) studies. The methods included a review of literature and documents and an in-depth field study in 27 woredas, 50 HP and on 60 HEW. Respondents were asked to use a 4-level scale. In each region, discussions were held with the RHB (mostly focal person for HEP), the WHOs in the selected woredas and the HEW in the selected HP/kebeles. The forms were filled and returned with the interviewer. In addition, secondary information was obtained on 86 other (non-visited) HP with HEW in the study woredas.

Results

Characteristics of CE undertaken to date: HEW (n=60), focal persons for HEP in WHO (n=27) and RHB (n=6) who have been involved in health extension activities participated in the study. The response rate was very high (93%) for the HEW. The number of sessions attended by HEW, the duration of each session, the organizers of the sessions, and the subject matter covered during the SE sessions were assessed. Moreover, the respondents rated the urgency and importance of subjects and courses. Most of the HEW interviewed (except those in Benishangul Gumuz) had been in their post for more than six months. Of the 56 HEW on which data is available, all except 2 in Oromia, have participated in at least one CE session (Table 1). On average each HEW in our sample had two CE sessions since assignment, but the number of sessions attended by HEW varied by region. HEW from Amhara, Oromia and Tigray had the highest number of CE sessions (2.9, 2.8 and 2.8 respectively), while HEW from Harari and Benishangul Gumuz had only one CE session. One reportedly had 8 sessions.

Table 1: **Number of CE Sessions per HEW by Region 2005**

Number	Amhara	Beni/G	Harari	Oromia	SNNPR	Tigray	Total
None				2	-	-	**2**
1	5	2	4	6	1	-	**18**
2	3	-	-	4	4	2	**13**
3	3	-	-	3	3	8	**17**
4 or more	3	-	-	2	-	-	**5**
Total	**14**	**2**	**4**	**17**	**8**	**10**	**55**
Average	**2.9**	**1**	**1**	**2.8**	**1.6**	**2.8**	**2.4**

Duration of the sessions varied from one day to more than 7 days for an average of 3.5 days per session (Table 2). Almost 60% of the sessions were of 3 days or less.

WHOs were the most frequent organizers, organizing about 60% of the sessions alone or in collaboration with others, NGOs in particular. In Oromia, zones seem to play a more active role organizing most (27/33) sessions while only 3/32 and 1/28 in Amhara and Tigray respectively. Zones played no role in SNNPR, BeniG and Harari (no zone). NGOs participated in the organization of CE in Amhara [World Vision (WV) 8 and CCF 2], Oromia [Pathfinder 2, Oromo Development Association (OLMA) 1] and SNNPR [Family Guidance Association (FGAE) 1, Medicine Sans Frontiere (MSF) 1]. Essential Services for Health in Ethiopia (ESHE) was also active in the three regions. There was only one report of CE organized by a HC in our sample (Tigray).

Table 2: Number of CE by Duration in Days of Sessions by Region, 2005

Days	Amhara	Beni/G	Harari	Oromia	SNNPR	Tigray	Total
1	4	-		4	3	4	**15**
2	10	-	2	2	3	-	**17**
3	11	-	2	7	4	10	**34**
4	1	-	-	3	2	5	**11**
5	3	-	-	8	-	9	**20**
6	3	2	-	-	1	-	**6**
7+	-	-	-	9	-	-	**9**
Total	**32**	**2**	**4**	**33**	**13**	**28**	**112**
Average	**2.9**	**6**	**2.5**	**4.4**	**2.7**	**3.5**	**3.5**

Table 3: **Organizers of CE by Region**

	Amhara	Beni/G	Harari	Oromia	SNNPR	Tigray	Total
RHB	1	2	4	3	-	2	**12**
Zone	3			23		1	**27**
WHOs	27			8	8	24	**67**
NGO	CCF 2 WV 8			OLMA 1 Pathfinder 2	MSF 1 FGAE 1		**15**
Other	ESHE 2			ESHE 5	ESHE 3	HC 1	**11**
Total (sessions)	**43 (32)**	**2 (2)**	**4 (4)**	**42 (33)**	**13 (13)**	**28 (28)**	**132* (112)**

*Number higher than sessions because of joint organizers

Twenty six topics were covered by CE during this period. When pooled into major themes (Table 4), malaria (including a sizeable number of sessions on Rapid Diagnostic Test [RDT]) had the largest number of sessions followed by reproductive health with epidemiology/epidemic surveillance a distant third.

Availability of reference materials: All the RHB in the study had received copies of the 16 HEP modules, in quite large numbers for the bigger regions [1600-2050 in Oromia, 398-2198 in SNNPR]. All WHOs in the study had also received copies except those in Beni/G, 2 in SNNPR and one each from Amhara and Oromia. Again most HP had at least one copy each of the modules in Amharic and, for some modules, copies in English too. However, 6 in SNNPR and 4 in Oromia had not yet received copies.

Table 4: **Number of CE Sessions by Subjects Covered**

Category	Amhara	Beni/G	Harari	Oromia	SNNPR	Tigray	Total
HEP	2	1	-	4	2	-	**9**
Reproductive health	5	-	2	12	3	2	**24**
Malaria	8	-	-	9	5	10	**32**
Epidemics/surveillance	3	-	2	-	3	5	**13**
EPI	3	-	-	6	2	-	**11**
HIV/AIDS	2			1	2	6	**11**
Nutrition	1	-	-	2	3	1	**7**
Total	**24**	**1**	**4**	**34**	**20**	**24**	**107**

All levels rate ease of understanding of the Amharic or local versions as high while the English versions are rated lower. Some HEW (Harari, Oromia) stress the need of translating these and similar materials into the vernacular languages. Tigray RHB has the materials translated into the local language. All rate the usefulness of these materials to HEW as very high.

Very few HP had any other reading materials. Some, particularly in SNNPR, had disparate collections going from the Amharic version of "Where There is No Doctor" to a treatise on breast cancer by one of the surgeons in Addis Ababa. These books were often donations from/sponsored by NGOs and/or bilateral and multilateral agencies. Few had copies of the MOH HEP Implementation Guidelines in English but would have preferred it in Amharic or the local language. Some copies of RHB guidelines on HEP (Amhara, SNNPR, Tigray) were also observed. No HP had a health-related Newsletter or journal. ***Future Expectations***: When asked about subjects not covered during their training that should be covered by CE, most HEWs were reluctant or unable to indicate such subjects. From the limited data from Amhara, SNNPR and Tigray, training in curative care (12/34), curative-related subjects (8/34) and delivery (8/34) stand out (Table 5).

From the 34 duties, 8 supportive courses and 5 common courses covered in the curriculum, HEW were asked to rate the priority for CE on a 1-4 scale. The 5 highest and 5 lowest priorities are shown in Table 6. They gave immediate priority to training in Basic Nursing Care, Home Delivery and Care to Children with Common Childhood Diseases. On the opposite side, HEW consider that no CE is required for Providing Family Planning Services, Enabling the community to carry out safe disposal of solid wastes using local resources, Civics and Entrepreneurship. In general, Environmental Health had the lowest priority rating followed by the Common Courses. None of the duties in Environmental Health were rated in the categories in which CE should be carried out in the next two years while all duties in Disease Prevention and Control (i.e. action against specific diseases) lie in these categories.

Table 5: **Subjects not-covered during training suggested for Continued Education for Health Extension workers.**

Title	Amhara	SNNPR	Tigray	Total
Curative care (diagnosis & Treatment)	4		8	**12**
Curative-related	2	5	1	**8**
- First Aid	*1*	*2*		***3***
- Drug info/pharmacology		*2*	*1*	***3***
- Basic nursing care	*1*			***1***
- Malaria treatment		*1*		***1***
Delivery	5	3		**8**
Nutrition		1		**1**
Plan: Health/Action/Budget	1	2		**3**
Documentation/Recording & registering	1	1		**2**
Epidemiology	1			**1**
Total	**14**	**12**	**9**	**35**

Table 6: **Continued Education for Health Extension workers required and when and Weighted Average.**

Course Title	Required and when				Weighted Average
	4	**3**	**2**	**1**	
Main Courses					
Community Documentation					**35.5**
Family Health Care					**36.7**
Duty 1. Providing Basic Nursing Care	√				48.8
Duty 9. Providing home delivery services	√				51.5
Duty 11. Providing care to children with common childhood diseases	√				50.5
Duty 13. Providing family planning services				√	24.5
Disease Prevention and Control					***42.3***
Duty I: Facilitating prevention and control of TB and leprosy		√			43.3
Duty 2: Facilitating prevention and control of HIV/AIDS and other STDs		√			42.5
Environmental Health					***28.5***
Duty 2: Enabling the community to carry out safe disposal of solid wastes using local resources				√	21.0
Supportive Courses					***29.7***
Introduction to Anthropology			√		25.8
Common Courses					***27.0***
Civics				√	24.3
Entrepreneurship				√	24.8

[4=immediately, 3=Next year, 2=eventually, 1=Not needed]

Discussion and Conclusions

Lack of access to information remains a major barrier to knowledge-based health care in developing countries for rural PHC in particular (11). HEWs have the least access to relevant information because they work in rural communities, a long distance from transport and communication facilities (12).

The fact that there has been a considerable number of CE in the few months since the deployment of the first batch of HEW is highly encouraging. Almost all have attended at least one CE session. The importance of this in terms

of knowledge/skill enhancement and in motivating the HEW could be very high. However, as for most CE/in-service training for health workers in the past (7, 8, 13) they tend to be ad hoc, conceived and undertaken by 'vertical programs or discrete departments. There is little coordination between different departments at different levels and even more so when, as often happens, the training is spearheaded by NGOs and/or bi/multi-lateral organizations. It has been documented that such undertakings could be ineffective and even counter-productive by wasting precious working time (10). In the decentralized system, WHOs would be expected to play a major role in rationalizing and coordinating these efforts but because they are understaffed and, in general under-resourced (14), they find it difficult to play their prioritizing and coordinating role. Thus, even though, as it should be, most CE programs have been purportedly organized by WHOs, quite often they end up as 'conducting tubes' for initiatives from RHB, ZHD and NGOs with little impact on choice of subject, content, and timing. Thus CEs sometimes address repetitive and over-lapping topics.

The fact that almost all HP with HEW have now copies of the 16 HEP modules is a very important step forward compared to the situation on their deployment (15). The English versions are reportedly difficult to understand for the HEW; fortunately, almost all HP have at least the Amharic version in some case have been translated to the local language. The fact that most HPs have no filing facilities (12) means that access to these materials are often difficult and their life-span will be limited.

These modules are, for most HP, the only information source available. Few HPs in some regions (notably SNNPR) have other reading materials sponsored by NGOs and some bilateral donors. While there does not seem to be any guiding principles on the selection of these materials (some are clearly of no immediate relevance to HEW) they are steps in the right direction in view of the isolation of HEW and the lack of reading materials and information sources in general. It could be that the several newsletters and leaflets prepared at different levels of the health management system, MOH in particular, are not targeted to HEW but it is surprising not to see them in most of the HP visited. It would be highly beneficial to develop a newsletter dedicated to HEW (12).

The need for CE for HEW because of the weak pre-service training, the dynamic circumstances at community levels (including growing demand for curative care) and changes in the prevention/control technologies and methods has been well-established (15). In a related perspective, a concurrent study (12) has shown that all HEW expect to be upgraded in a few years time. Thus it might not come as a surprise that the few HEW who expressed their opinion on CE on subjects not covered in the curriculum focused on curative care. This might be in response to the fact that HEWs are hard-pressed by communities to provide curative care (12). It is also notable that the request for immediate CE in subjects purportedly covered in the curriculum focus on mainly curative-related tasks (Table 6). On the other hand, the more prevention oriented tasks such as FP services and most of the environmental health activities are ranked very low in the pecking order for CE.

As shown above, there is a laudable effort on CE. However, there is a clear need to organize this effort better. CE should be planned as thoroughly as possible with the involvement of all concerned and its implementation better coordinated. It should be based on clear analysis of training needs, closely monitored and evaluated at the relevant levels. WHOs in particular should be empowered to fulfill these roles. Ways of making CE part of the reward system for promotion, transfer, and upgrading should be explored and implemented effectively and transparently. To this end, all CE should lead to accumulation of credits (as for example for nurse [16]) which would be counted towards the above ends.

CE coordination has eluded the sector to date in spite of attempts through (the now almost defunct) Regional Training Centers (7). It is to be hoped that the new Department of HRD will be able to tackle CE/in-service training more proactively. A strong unit for CE should be envisaged. CE and access to information in general should not be approached through the conventional (workshops, seminars etc) face-to-face approaches only but also explore the possibilities opened by ICT revolution (1, 17, 18). This potential is recognized by the sector, "FMOH must enhance its effort to put in place the mechanisms for accessing telemedicine and electronic distance teaching facilities as rapidly as possible" (19). Preparation should be started immediately to use Ethiopian Telecommunication's (ETC's) effort in Woreda-Net and rural connectivity (20, 21) as soon as they are installed. MOE resources in distance education including school TV could also be used.

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